## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-27 (Cancelled)

28. (New) A machine-readable data structure stored on a machine-readable medium, the data structure comprising:

appearance data that indicates an appearance for each of a plurality of nodes associated with a portion of a surface of an object;

displacement data that indicates a displacement distance for each of the plurality of nodes from a corresponding reference; and

local coordinate system data that indicates a local coordinate system for the plurality of nodes.

29. (New) The machine-readable data structure of claim 28:

wherein the appearance data indicates an independent appearance for each of the plurality of nodes; and

wherein the displacement data indicates an independent displacement distance for each of the plurality of nodes.

30. (New) The machine-readable data structure of claim 28:

wherein the coordinate system data indicates a base plane; and

wherein the displacement data indicates a displacement distance from a corresponding reference node in a base plane.

31. (New) The machine-readable data structure of claim 28, wherein the local coordinate system data comprises data sufficient to indicate an origin, a first axis, a second axis, and a length associated with the first axis.

32. (New) The machine-readable data structure of claim 28, wherein the appearance data comprises color data; and

33. (New) The machine-readable data structure of claim 28, wherein the data structure comprises appearance data and displacement data for a multiple of $2^k+1$ nodes, where k is a positive integer.

34. (New) A method comprising creating computer graphics based on the data structure of claim 28.

35. (New) The method of claim 34, further comprising presenting the computer graphics on a presentation device.

36. (New) A method comprising:

accessing graphical data for a plurality of nodes that represent at least a portion of a surface of a three-dimensional object, the graphical data including:

appearance data that indicates an appearance for each of the plurality of nodes;

displacement data that indicates a displacement distance for each of the plurality of nodes from a corresponding reference node; and

local coordinate system data that indicates a local coordinate system for the plurality of nodes; and

creating computer graphics based on the graphical data.

37. (New) The method of claim 36, wherein accessing the graphical data comprises:

accessing appearance data that indicates an independent appearance for each of the plurality of nodes; and

accessing displacement data that indicates an independent displacement distance for each of the plurality of nodes.

38. (New) The method of claim 36:

wherein accessing the local coordinate system data includes accessing data sufficient to define a base plane; and

wherein creating includes determining a displaced node by combining a displacement distance with a corresponding reference node in the base plane.

39. (New) The method of claim 36, wherein creating comprises removing a node of the plurality of nodes if the node lies outside of a view volume by clipping the portion.

40. (New) The method of claim 36, wherein creating comprises modifying a color value based on lighting calculations, the lighting calculations including calculating a normal vector by forming a vector product of tangents associated with neighboring nodes.

41. (New) The method of claim 36, wherein creating comprises:

determining four pixels of a quadrilateral that correspond to four nodes of the plurality of nodes, the quadrilateral having a quadrilateral dimension;

determining an inner pixel contained within the quadrilateral by comparing the quadrilateral dimension with a pixel dimension; and

determining a value for the inner pixel by using values for at least one of the four pixels.

42. (New) The method of claim 36, wherein accessing includes accessing graphical data for a multiple of $2^k+1$ nodes, where k is a positive integer.

43. (New) The method of claim 36, further comprising presenting the computer graphics on a presentation device.

44. (New) A machine-readable medium having stored thereon data representing sequences of instructions that when executed cause a machine to:

access graphical data for a plurality of nodes that represent at least a portion of a surface of a three-dimensional object, the graphical data including:

appearance data that indicates an appearance for each of the plurality of nodes;

displacement data that indicates a displacement distance for each of the plurality of nodes from a corresponding reference node; and

local coordinate system data that indicates a local coordinate system for the plurality of nodes; and

creating computer graphics based on the graphical data.

45. (New) The machine-readable medium of claim 44, wherein the instructions to access graphical data further comprise instructions causing the machine to:

access appearance data that indicates an independent appearance for each of the plurality of nodes; and

access displacement data that indicates an independent displacement distance for each of the plurality of nodes.

46. (New) The machine-readable medium of claim 44:

wherein the instructions to access the local coordinate system data further comprise instructions causing the machine to access data sufficient to define a base plane; and

wherein the instructions to create the computer graphics further comprise instructions causing the machine to determine a displaced node by combining a displacement distance with a corresponding reference node in the base plane.

47. (New) The machine-readable medium of claim 44, wherein the instructions to access further comprise instructions causing the machine to access a data structure having graphical data for a multiple of $2^k+1$ nodes, where k is a positive integer.

48. (New) An apparatus comprising:

a rendering unit to render graphical data, the graphical data including:

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appearance data that indicates an appearance for each of a plurality of nodes associated with a portion of a surface of an object;

displacement data that indicates a displacement distance for each of the plurality of nodes from a corresponding reference; and

local coordinate system data that indicates a local coordinate system for the plurality of nodes.

49. (New) The apparatus of claim 48:

wherein the appearance data indicates an independent appearance for each of the plurality of nodes; and

wherein the displacement data indicates an independent displacement distance for each of the plurality of nodes.

50. (New) The apparatus of claim 48:

wherein the coordinate system data indicates a base plane; and

wherein the displacement data indicates a displacement distance from a corresponding reference node in a base plane.

51. (New) The apparatus of claim 48, wherein the local coordinate system data comprises data sufficient to indicate an origin, a first axis, a second axis, and a length associated with the first axis.

52. (New) The apparatus of claim 48, wherein the rendering unit corresponds to a particular chunk.

53. (New) The apparatus of claim 48, wherein the rendering unit comprises logic to execute SIMD instructions.

54. (New) The apparatus of claim 48, further comprising a cache.

55. (New) The apparatus of claim 48, wherein the rendering unit comprises software.

56. (New) The apparatus of claim 48, further comprising an expansion board.

57. (New) The apparatus of claim 48, further comprising a computer system including a communication device and having the expansion board plugged therein.

58. (New) An apparatus comprising:

a bus;

a memory coupled with the bus;

a processor coupled with the bus;

a communication device coupled with the bus; and

a rendering unit to render a data structure, the data structure comprising:

appearance data that indicates an appearance for each of a plurality of nodes associated with a portion of a surface of an object;

displacement data that indicates a displacement distance for each of the plurality of nodes from a corresponding reference; and

local coordinate system data that indicates a local coordinate system for the plurality of nodes.

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59. (New) The apparatus of claim 58:

wherein the appearance data indicates an independent appearance for each of the plurality of nodes; and

wherein the displacement data indicates an independent displacement distance for each of the plurality of nodes.

60. (New) The apparatus of claim 58:

wherein the coordinate system data indicates a base plane; and

wherein the displacement data indicates a displacement distance from a corresponding reference node in a base plane.

61. (New) The apparatus of claim 58, wherein the local coordinate system data comprises data sufficient to indicate an origin, a first axis, a second axis, and a length associated with the first axis.

62. (New) The apparatus of claim 58, further comprising:

a second rendering unit to render a second data structure in parallel with the rendering of said data structure, the second data structure including a second set of color data, displacement data, and local coordinate system data.

63. (New) The apparatus of claim 58, wherein the data structure comprises color data and displacement data for a multiple of $2^k+1$ nodes, where k is a positive integer.

64. (New) A machine-readable spatial patch means stored on a machine-readable medium, the spatial patch means comprising:

appearance data;

displacement data; and

local coordinate system data.

65. (New) A method comprising creating computer graphics based on the spatial patch means of claim 64.

66. (New) The method of claim 65, further comprising presenting the computer graphics on a presentation device.